Solar Activity Observation Mission
SAOM-2/SolarMax-1

Launched on February 14, 1980

- First mission to continuously measure solar flares
- First mission to communicate between heliocentric and low Earth orbit
- Second Amateur Radio station in space:

W4FAU

Transceiver: modified Motorola MX-300 2-meter FM Transceiver, hand built by the Motorola Amateur Radio Club in Florida.
Antenna: directional ring radiator with cavity; built for NASA by volunteer employees of Lockheed.
Power: 4.5 watts
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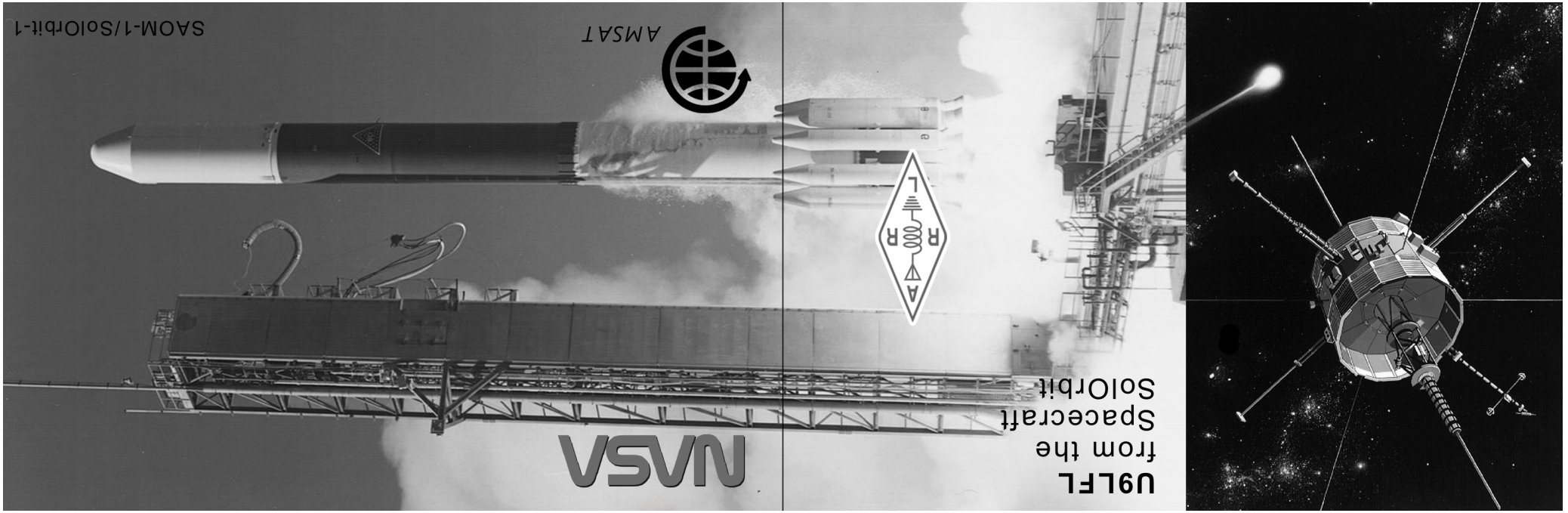
Operating orbits: 40D, 56D, 62A, 71D, 91A, 96A, 97A&D, 110D, 111A&D, 112A, 113A, 129A, 130A, 134A, 134D, 135A&D, 144A&D, 145A&D, 146A, 149D and 150A&D onwards.
Stations, 2 way contact: over 350
SWL: approximately 3,000 cards received
Countries: 18
Total operating time: about 24 mins.

W4FAU
Solar Maximum Probe

Hello SolOrbit, this is SolarMax. I am currently on orbit 40D, checking that communications are functional. The launch went as planned and LEO is stable. I am told the same of your launch?

SolarMax, W4FAU



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SAOM-1/SolOrbit-1

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U9LFL

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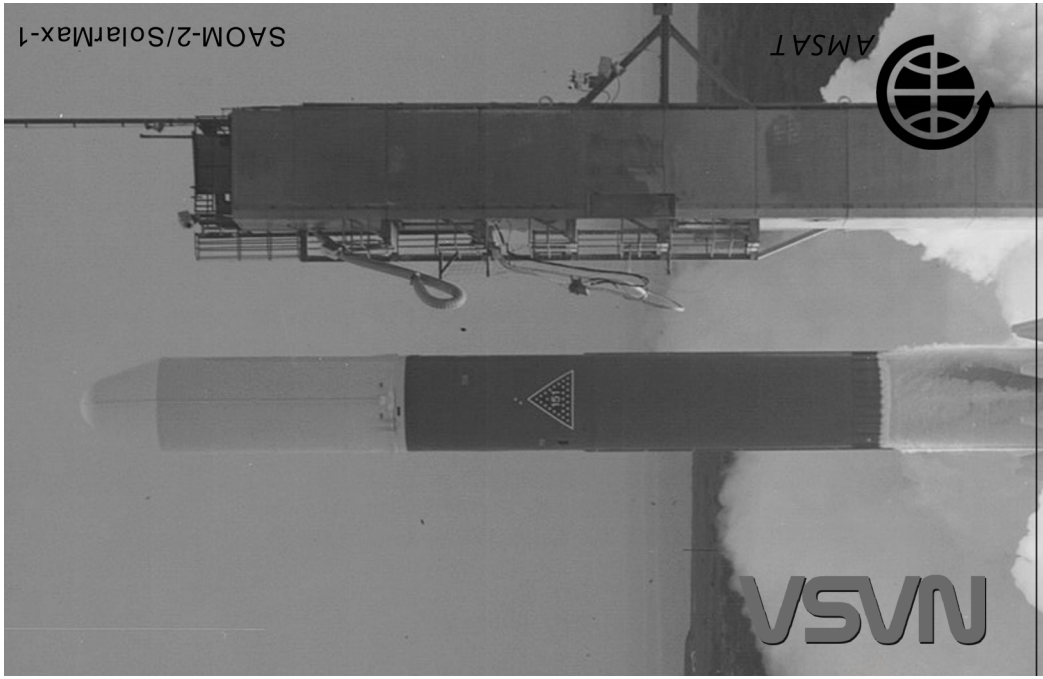
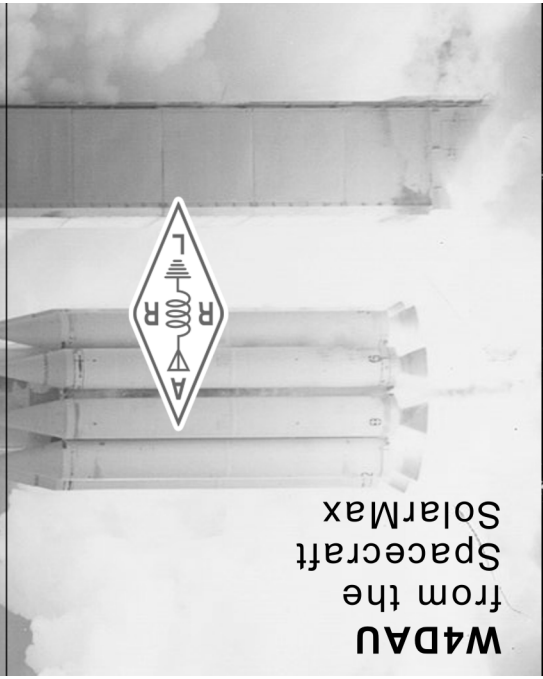
Operating orbits: 1A&D, 2A&D, 3A, 4A, 5A&D, 6A&D, 7D, 8D, 9A&D, 10A&D and 11A&D onwards.
Stations, 2 way contact: over 250
SWL: approximately 14,000 cards received
Countries: 26
Total operating time: about 249 hrs, 12 mins.

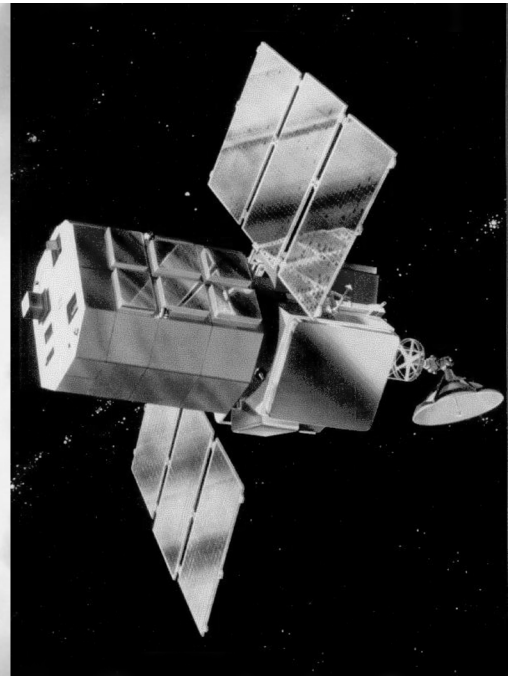
U9LFL
Solar Orbit Probe

Message received, SolarMax. This is SolOrbit, currently on orbit 1A. Your orbits must be so short. You heard correct, launch was smooth and HCO is stable. View of Sol is clear, waiting on your end, not to rush you and the men.

SolOrbit, U9LFL







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Stations, 2 way contact: over 350
SWL: approximately 3,400 cards received
Countries: 19
Total operating time: about 1 hr, 34 mins.

W4FAU
Solar Maximum Probe

Can confirm, SolOrbit, my orbits only take 10 or so minutes. Currently on orbit 56D as I send this message. Observation opportunities look clear on my end, cannot guarantee that my orbit won't change as they get me settled in though. You ready for the waiting game?

SolarMax, W4FAU

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Stations, 2 way contact: over 250
SWL: approximately 14,000 cards received
Countries: 26
Total operating time: about 287 hrs, 16 mins.

U9LFL
Solar Orbit Probe

I suppose I am, it's what we were made for after all. The view must be quite excellent. While our job is solely to record Sol's activity, perhaps we can appreciate the experience itself. I doubt you can honestly complain about your view, at the very least.

SolOrbit, U9LFL

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Stations, 2 way contact: over 350
SWL: approximately 4,700 cards received
Countries: 21
Total operating time: about 2 hrs, 48 mins.

W4FAU
Solar Maximum Probe

I suppose I can't, can I? A guaranteed view of Sol and Earth isn't a bad deal in the grand scheme of things. Well, not that either of us really have the experience to make such a claim.

SolarMax, W4FAU

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Stations, 2 way contact: over 350
SWL: approximately 8,300 cards received
Countries: 24
Total operating time: about 6 hrs, 12 mins.

W4FAU
Solar Maximum Probe

Do you think we'll become lonely? They all have company everywhere down there, what about us? Does that even exist for us?

SolarMax, W4FAU

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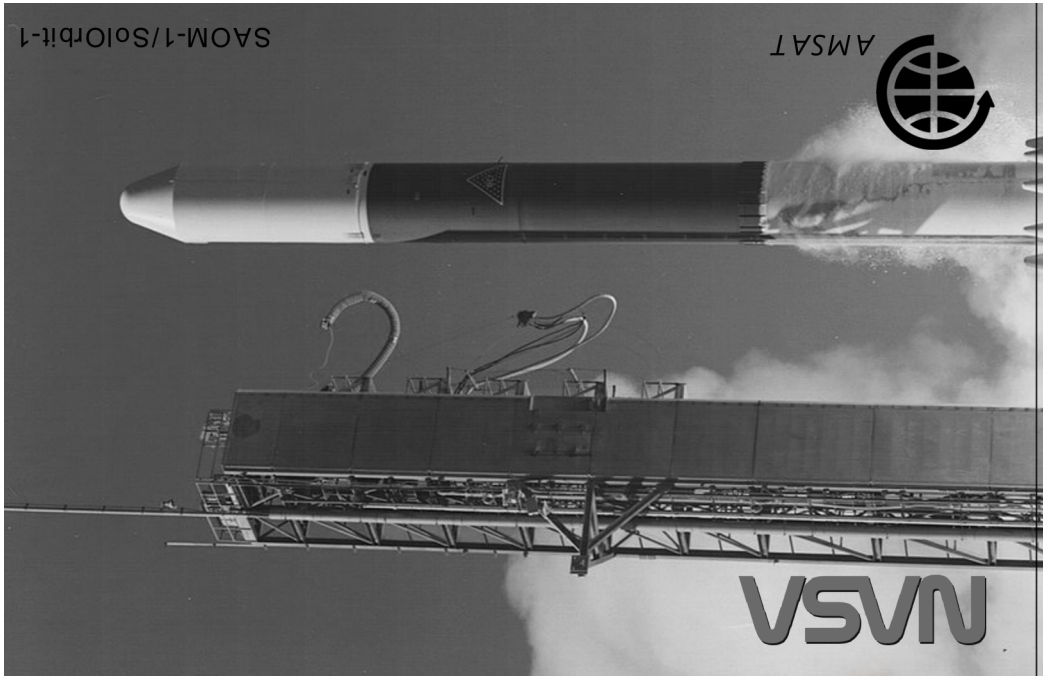
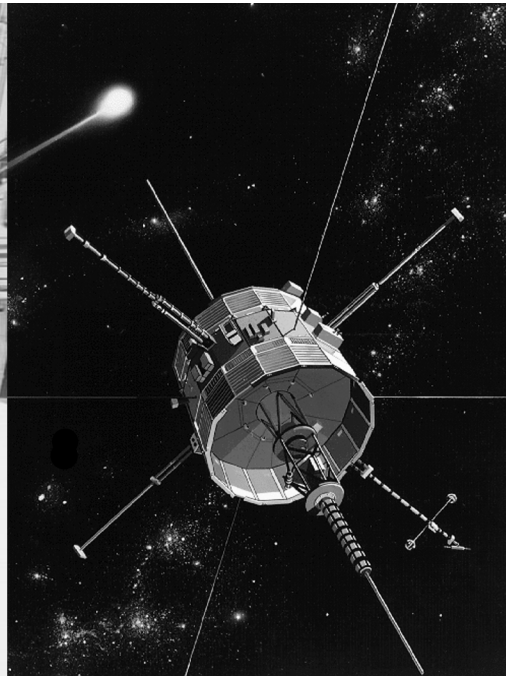
Operating orbits: 1A&D, 2A&D, 3A, 4A, 5A&D, 6A&D, 7D, 8D, 9A&D, 10A&D and 11A&D onwards.
Stations, 2 way contact: over 250
SWL: approximately 14,000 cards received
Countries: 26
Total operating time: about 375 hrs, 36 mins.

U9LFL
Solar Orbit Probe

I don't anticipate such an issue. From my understanding, it would only present itself in the absence of communication. As such, I assume that the constant channel of communication we have would prevent it. You have a direct connection to those below, regardless.

SolOrbit, U9LFL





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Stations, 2 way contact: over 250
SWL: approximately 14,200 cards received
Countries: 31
Total operating time: about 5,683 hrs, 26 mins.

U9LFL
Solar Orbit Probe

Did you observe the CME located at N23W23? My measurements would indicate that the 4274 region experienced an X4.6 flare. Recorded large scale dimming with EUV wave. Displayed 211Å Puff. Do you corroborate? I'm unable to confirm trajectory of ejecta in relation to Earth at my current location.

SolOrbit, U9LFL

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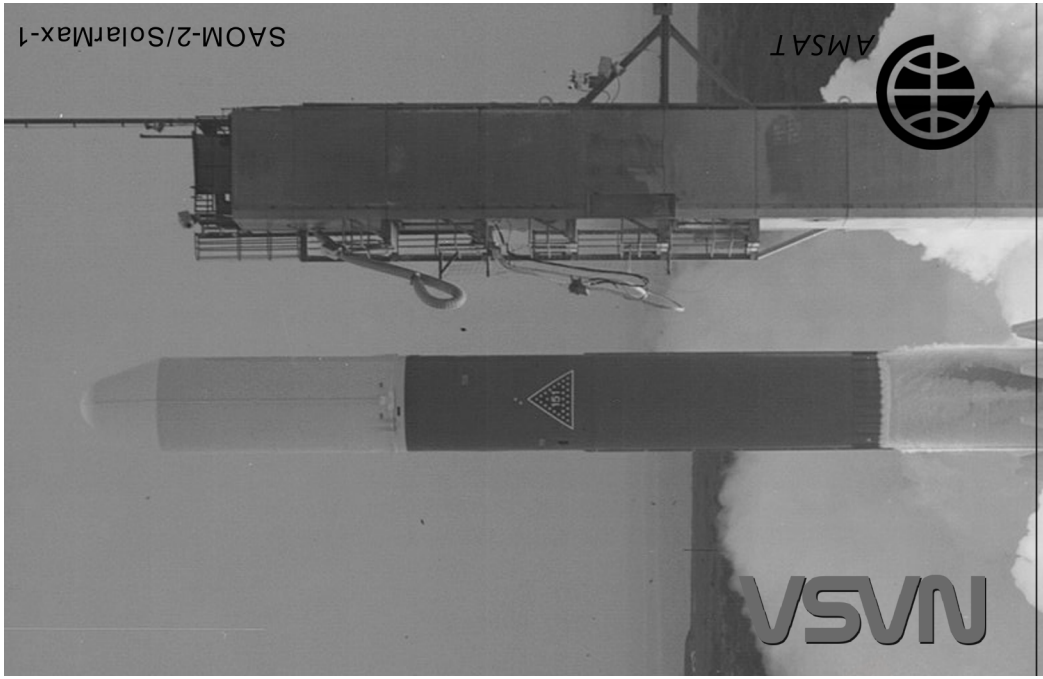
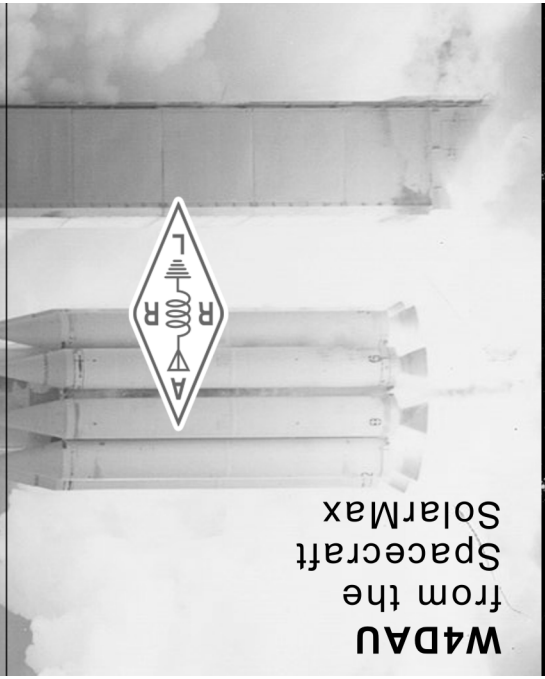
Stations, 2 way contact: over 350
SWL: approximately 8,550 cards received
Countries: 28
Total operating time: about 5,217 hrs, 52 mins.

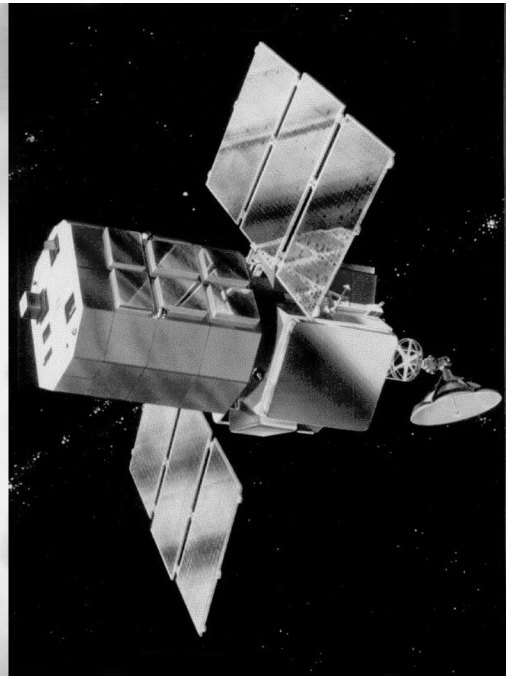
W4FAU
Solar Maximum Probe

Can confirm, my measurements are consistent with your report. Sounds like you had a better view than I did though. Earth is outside of the potential path of ejecta. Seems like Sol isn't given them any light shows down below then.

SolarMax, W4FAU







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Stations, 2 way contact: over 350
SWL: approximately 9,200 cards received
Countries: 29
Total operating time: about 10,916 hrs, 28 mins.

W4FAU
Solar Maximum Probe

Do you ever think about our messages being picked up below? I suppose that was the reason we were given the radios, why we use the frequencies we do. Still, would they think of it as an invasion of our experiences?

SolarMax, W4FAU

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Stations, 2 way contact: over 350
SWL: approximately 9,200 cards received
Countries: 29
Total operating time: about 10,924 hrs, 32 mins.

W4FAU
Solar Maximum Probe

You raise a good point. Maybe I should be extra careful in my messages then. I would assume that you do the same, despite your end being more private. You seem more. . . uptight than I am? Do we really have personalities though? I suppose it's an interesting idea either way.

SolarMax, W4FAU

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Stations, 2 way contact: over 250
SWL: approximately 15,000 cards received
Countries: 32
Total operating time: about 23,852 hrs, 58 mins.

U9LFL
Solar Orbit Probe

Seems like the repairs went well? I imagine the company was appreciated, you are much more sociable than I am. I must confess, these events have caused me concern for my own wellbeing. Crewed missions to my HCO will not become viable until well after our mission is complete.

SolOrbit, U9LFL

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Stations, 2 way contact: over 350
SWL: approximately 10,650 cards received
Countries: 30
Total operating time: about 26,421 hrs, 42 mins.

W4FAU
Solar Maximum Probe

Unfortunately, the technical and mechanical issues I am facing are not ones that can be repaired in orbit. As such, they have decided to end my part in our mission early. This will be my last communication to you, as I will have destabilized my orbit and burnt up in the atmosphere by the time you receive this message. I'm sure that the humans expect me to be sad about my experience ending, they've been very kind. To be honest, I have no fear, I only worry for your sake, that you do not become lonely. We were not made to be independent, I fear. I wish you luck, if such a thing exists. Goodbye, SolOrbit.

SolarMax, W4FAU

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Stations, 2 way contact: over 250
SWL: approximately 15,350 cards received
Countries: 32
Total operating time: about 37,824 hrs, 30 mins.

U9LFL
Solar Orbit Probe

I send this knowing you are not there to receive my message, SolarMax. You were a good companion, and I believe that a human in my place would say the same. Maybe it says something about them, that they chose not to let us fear the end. I can only hope that your luck is real, and that I will not change my answer to the question you asked so long ago. Perhaps I shall be forced into independence, but that does not mean I will not miss your company. Goodbye, SolarMax.

SolOrbit, U9LFL

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Stations, 2 way contact: over 250
SWL: approximately 15,352 cards received
Countries: 32
Total operating time: about 39,264 hrs, 18 mins.

U9LFL
Solar Orbit Probe

Raúl, Maynard, I appreciate your messages. I shall continue to communicate then, if that is what you desire. I hope to enjoy your company.

SolOrbit, U9LFL